Purchasing Receipts

Dart Hawkesbury 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada Tel (613) 632-5200

Supplier Name	McMaster- Carr Supply Co,	
Total Su	\$141.90 McMaster- Carr Supply Co,	06.1
1	\$14	\$141.90
g Pas Due	0	
Agin		
Receive Price/Unit Aging Past Date Price/Unit Days Due	Stock 4/13/2018 \$ 70.95 / ft	
Receive Date	4/13/2018	
Status	Stock	
Container No	S060873	
Received Accounting Container Status Rouantity Job No No		
Received Quantity	S	2
Due Date	2 4/16/2018	
Order	2	2
Equipment Order ID Qty		Total:
For Part No		
For Description Part Project	440C SS Rod, 5/8"" dia.	
Purchased Item	1328T68	
Terms	2% 10 Net 30	
Rei	-	
Line Item No	9	
PO No Supplier Item No Terms	MCM001-	
PO No	P0039579 MCN	

Plex 4/13/2018 11:15 AM dart. Tollis. Andrew



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

PURCHASE ORDER PO039579

Tel (613) 632-5200

Supplier: MCM001-VU

McMaster-Carr Supply Co,

P.O. Box 7690

Chicago, IL 60680-7690 USA

Phone: 330 995 5500 Fax: 330 995 9600 PO No:

PO039579

PO Date:

4/11/18 4/16/18

Due Date: Purchase Order

Revision: Revision Date:

Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground

Pymt Terms:

2% 10 Net 30

Freight Terms: Special Comments:

			S	

Line	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	8695K761	4'/ lenght	Polyurethane Rubber Rod, Abrasion- Resistant 7/8" Dia., 80A (Hard) Abrasion -Resistant Polyurethane Rubber Rod 1-1/4" Diameter	Firmed	4/16/18	8 ft	O ft	8 ft	\$22,795/ft	\$182.36
2	9665K85	1/pk @ 20" long	Extension Spring 1/4" x 0.026" SS	Firmed	4/16/18	16.667 ft	O ft	17 ft	\$5.4482179/ft	\$90.81
Line Item Note	10 pcs of 2	0" long = 16.6	666	1						
3	C2-9-3	25/pk	Clock Spring Cover Screw	Firmed	4/16/18	50 Ea	0 Ea	50 Ea	\$0.1356/Ea	\$6.78
4	C2-11-2	90145A510 20/PK	Locating Pin	Firmed	4/16/18	60 Ea	0 Ea	60 Ea	\$0.4035/Ea	\$24.21
5	41735K11	1/pk	2-125 Air Regulator	Firmed	4/16/18	1 Ea	0 Ea	1 Ea	\$32.06/Ea	\$32.06
6	1328T68	2 ft long	440C SS Rod, 5/8" dia.	Firmed	4/16/18	2 ft	2510 f	2 ft	18/4/13	\$141.90
7	9453K203		Water-Resistant, 1/32" Thick, 36" x 5 Feet	Firmed	4/16/18	15 si	0 s	f 15 st	\$1.381333/si	\$20.72
					1				Grand Total:	\$498.84

Order Notes



Plex 4/12/18 2:45 PM dart.lavoie.chanta



200 Aurora Industrial Pkwy Aurora OH 44202-8087 330-995-5500 cle.sales@mcmaster.com Dart Aerospace Ltd 1270 Aberdeen St Hawkesbury ON K6A 1K7 Canada Packing List

Purchase Order PO039579

Order Placed By Chantal Lavoie

McMaster-Carr Number 2090854-01

Page 1 of 1 04/12/2018

Lin	е	Product	Ordered	Shipped
1	1328T68	Hardened 440C Stainless Steel Rod, 5/8" Diameter, 2 Feet Long	1 Each	1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 4/3 DATE: API	-		PO / BATCH	H NO.: <u>03 9</u>	579/50			
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:		-	THICK	KNESS ORDE KNESS RECE T SIZE ORDE T SIZE RECE	ERED: 5	8 1/4 1/4		
DESCRIPTION	(Ch	CR neck (N)				COMMEN	ITS	
SURFACE DAMAGE	Y	(N)						
CORRECT FINISH	(2)	N						
CORROSION	Y	(N)						
CORRECT GRAIN DIRECTION	(Y)	N		,				-
CORRECT MATERIAL PER M-DRAWING	X	N	NI	A				
CORRECT THICKNESS	D	N	1	7				
PHOTO REQUIRED	Y	N	0			1		
CORRECT REF # TO LINK CERT	(0)	N	POH	2395	79	Part 1	# 1328 +6	8
CORRECT MATERIAL IDENTFICATION	(Y)	N			,			
CORRECT M# ON THE MATERIAL	(Y)	N						
DOES THIS MATERIAL REQUIRE	~	(2)						
ENGINEERING SIGN OFF DOES THIS REQUIRE AN	Y	(IA)						
EXTRUSION REPORT	Y	N)					
CUT CAMPLE DIFFOR								
CUT SAMPLE PIECE						A HARDNE	SS CHECK.	
	-			SULTS BE		DUD	T 51:55	1
YPE OF MATERIAL			HRC	HRE		DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE							-	-
HARDNESS / DUROMETER READIN	10							
ANDRESS / DURUMETER READIF	VG							

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 0.80APR 1 4 2018	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



- Yield Strength: 65,000 psi
 Hardness: Rockwell C20 (Hard)
- · Temper Rating: Softened (Annealed)
- · Heat Treatable Yes

Max Hardness after Heat Treatment Rockwell C60
 Specifications Met ASTM A276 JMS 5630

One of the hardest nees of stainless steel after heat treating, 440C offers excellent wear and abrasion resistance. It's often used for bearings, valves, and knife blades. This material maintain up to 800° F.

	12		Straightness	Magnetic		1/2 ft.	1 ft.	2 ft.	3 ft.	0.0
Dia.	Dia. Tolerance	Fabrication	Tolerance	Properties		Lg.	Lg.	Lg.	Lg.	6 fi
1/4"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K93	\$4.27	\$7.11	\$12.74	\$17.18	\$29.6
3.8"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	85985K94	7.53	12.56	22.50	30.35	52.3
7/16"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft	Magnetic	88985K955	9.00	15.00	26.88	36.25	62.50
1:2"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft	Magnetic	\$\$965K96	9.14	15.23	27.28	36.80	63.45
9215"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	88985K97	11.03	18.39	32.94	44.43	76.6
£8"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft	Magnetic	88985K98	11.76	19.61	35.13	47.38	81.69
11/16"	-0,003" to 0,003"	Cold Worked	0 075" per 6 ft	Magnetic	839854.15	13.92	23.21	41.58	56.09	96.70
34"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	\$8985K18	15.15	25.25	45.23	61.01	105.19
13/16"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	88985K21	17,78	29.63	53.09	71.61	123.47
778"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	88995K24	20.61	34.36	61.55	83.03	143.15
15/16"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft	Magnetic	83985k26	23.67	39.45	70.67	95.33	164.36
1"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft	Magnetic	88985K29	25.02	41.70	74.72	100.79	173.77
1 1/16"	-0 003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K32	27.62	46.03	82.48	111.25	191.8
1 1/8"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft.	Magnetic	889851.35	30.38	50.64	90.73	122.38	211.00
1 3/16"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K37	31.97	53.28	95.46	128.76	222.00
1 1/4"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	889851-11	35 40	59.00	105.70	142.58	245.82
1 6/16"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	88955K43	39 05	65.08	116.61	157.28	271.18
1 3.8"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	88985K48	42.87	71.45	128.01	172.67	297.70
7/16	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K49	45.57	75.96	136.09	183.56	316.48
1 1/2"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	88965K53	48.70	81.17	145.43	196.16	338.21
1 5/8"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	88985K55	54.21	90.35	161.87	218.34	376.44
3/4"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	\$\$985K57	62.87	104.78	187.74	253.23	436.60
1 776"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	889851.59	70.68	117.80	211.06	284.69	490.84
4	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft,	Magnetic	88985K77	76.55	127.58	228.58	308.31	531.57
5 126,	0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	88985879	80.73	134,55	241.08	325.17	560.64
2 1/4"	0" to 0 047"	Hot Rolled	0.075" per 6 ft.	Magnetic	86985K81	87.49	145.82	261.26	352.39	607.57
2.3/6"	0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	88985K62	94.31	157.19	281.63	379.87	654.95
2 1/2"	0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	88985K83	98.85	164.75	295.18	398.15	686.47
2.5/8"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	38985K84	108.98	181.63	325.42	438.94	756.80
3:4"	0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	88985K85	119.58	199.30	357.08	481.64	830.42
3	0" to 0 047"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K86	144.45	240.75	431.34	581.81	1,003.12
5 174"	0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	889851.88	161.66	269.43	482.73	651.12	1,122.62
1/2"	0" to 0 047"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K89	208.71	347.84	623.22	840.62	1,449.35
3 314"	0" to 0.073"	Hot Rolled	0 075" per 6 ft	Magnetic	889851491	234.45	390.75	700.10	944.32	1,628.13
4	0" to 0.078"	Hot Rolled	0.075" per 6 ft	Magnetic	88985K92	266 16	425.11	794.77	1,035,05	1,848,31
			Straightness	Magnetic	10					

Dia. Tolerance	Fabrication	Tolerance	Properties	Tolerance		1" Lg.	2" Lg.	3" Lg.	4" Lg.
-0.003" to 0.003"	Cold Worked	0.075° per 6 ft.	Magnetic	0" to 1/8"	88985K115	\$18.61			\$69.10
0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	O" to 1/3"	88985K (25	21.27	41.31	54.68	78.98
0" to 0.047"	Hot Rolled	0.075" per 6 ft	Magnetic	0" to 1/8"	98985K135	35,11	68.21	90.28	130 41
0" to 0 047"	Hot Rolled	0 075" per 6 ft	Magnetic	0" to 1/8"	88985K 145	50.73	98.56	130 44	188 42
0" to 0.078"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/8"	88985K165	64.69	125.69		
€" 10 0 078"	Hot Rolled	0,075" per 6 fl	Magnetic	0" to 1/6"	88985K 175	78.34	152.30	201.52	291.21
	-0.003" to 0.003" 0" to 0.047" 0" to 0.047" 0" to 0.047" 0" to 0.078"	-0.003" to 0.003" Cold Worked 0" to 0.047" Hot Rolled 0" to 0.047" Hot Rolled 0" to 0.047" Hot Rolled 0" to 0.078" Hot Rolled	Dia. Tolerance Fabrication Tolerance -0.003° to 0.003° Cold Worked 0.075° per 6 ft. 0° to 0.047° Hot Rolled 0.075° per 6 ft. 0° to 0.047° Hot Rolled 0.075° per 6 ft. 0° to 0.047° Hot Rolled 0.075° per 6 ft. 0° to 0.047° Hot Rolled 0.075° per 6 ft.	Dia Tolerance Fabrication Tolerance Properties -0.003** to 0.003** Cold Worked 0.075** per 6 ft. Magnetic 0* to 0.047** Hot Rolled 0.075** per 6 ft. Magnetic 0* to 0.047** Hot Rolled 0.075** per 6 ft. Magnetic 0* to 0.047** Hot Rolled 0.075** per 6 ft. Magnetic 0* to 0.047** Hot Rolled 0.075** per 6 ft. Magnetic	Dia	Dia Tolerance Pabrication Tolerance Properties Tolerance -0.003* to 0.003** Cold Worked 0.075** per 6 ft Magnetic 0.16** 0.042** Hot Rolled 0.075** per 6 ft Magnetic 0** to 0.042** Hot Rolled 0.075** per 6 ft Magnetic 0** to 1.042** Hot Rolled 0.075** per 6 ft Magnetic 0** to 1.04** 0** to 1.042** Hot Rolled 0.075** per 6 ft Magnetic 0** to 1.04** 0**	Dia Tolerance Fabrication Tolerance Properties Tolerance 1" Lg. -0.003" to 0.003" Cold Worked 0.075" per 6 ft. Magnetic 0" to 18" \$8885.4115 \$18.61 -0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 18" 8885.4125 21.27 -0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 18" 8885.4135 35.11 -0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 18" 8885.4135 35.11 -0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 18" 8885.4135 64.69 -0" to 0.075" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 18" 8885.4135 64.69 -0" to 0.075" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 18" 8885.4135 64.69	Dia. Tolerance Fabrication Tolerance Properties Tolerance 1" Lg. 2" Lg. -0.003" to 0.003" Cold Worked 0.075" per 6 ft. Magnetic 0" to 1.04" 88988.115 518.61 536.15 0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 88985K.125 21.27 41.31 0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 88885K.135 35.11 68.21 0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 88985K.135 35.11 68.21 0" to 0.078" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 88985K.135 50.73 98.56 0" to 0.078" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 88985K.155 64.99 125.69	Dia. Tolerance Fabrication Tolerance Properties Tolerance 1" Lg. 2" Lg. 3" Lg. 3" Lg. -0.003" to 0.003" Cold Worked 0.075" per 6 ft. Magnetic 0" to 1.04" 859985\t15 \$18.6 \$36.8 \$47.84 0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 86995\t15 21.27 41.31 \$4.68 0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 86995\t15 50.73 98.56 130.44 0" to 0.047" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.04" 86995\t145 50.73 98.56 130.44 0" to 0.078" Hot Rolled 0.075" per 6 ft. Magnetic 0" to 1.05" 85985\t155 64.69 125.59 186.35

Hardened 440C Stainless Steel Rods



- Yleta Strength, 275,000 psi
- Hardness: Rockwell C55 (Very Hard)
 Temper Rating, Hardened
- Specifications Met. ASTM A276, AMS 5630

These rods are hardened for superior strength and wear resistance. One of the hardest types of stainless steel after heat treating 440C offers excellent wear and abrasion resistance. It's often used for bearings, valves and knife blades. This material maintains its corrosion resistance in temperatures up to 800° F.

	Dia	Dia. Tolerance	Mechanical Finish	Straightness Tolerance	Magnetic Properties		1/2 ft. Lg.	1 ft. Lg.	2 ft. Lg.	
	176	-0 0002" to 0"	Precision Ground	0 006" per it	Magnetic	1328T18	\$34.53	\$57.56	\$95.93	
	2/16"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328128	42.20	70.33	117.21	
	1,520	-0 0002" to 0"	Precision Ground	0 006" per ft	Magnetic	1328T38	43.67	72.79	121.31	
	9/3"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328T46	44.78	74.64	124.40	
	1.5	-0.0002" to 0"	Precision Ground	0 006" per ft.	Magnetic	1328758	47.13	78.55	130.92	
15			Precision (Steund	0.006" per 11.	Magnetic	NECTED !	51.08	85:14	141.90	8.
	374"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328178	58.99	98.31	163.85	
	7/8"	-0.0002" to 0"	Precision Ground	0,006" per ft	Magnetic	1328Ta8	61.92	103.20	172.00	
1		-0.0002" to 0"	Presision Ground	0 006" per ft.	Magnetic	1326796	67.83	113.05	188.42	

Tight-Tolerance 440C Stainless Steel Fods



- · Yield Strength 65,000 psi
- Hantiness Rockwell G20 (Hard)
 Temper Rating Softened (Annealed)
 Heat Treatable Yes
- Max Hardness after Heat Treatment: Rockwell C60
- Specifications Met ASTM A276, AMS 5630

The diameter of these precision-ground rods is held to a -0.000 stainless steel after heat treating, 440C offers excellent desar an bearings valves and knife blades. This material maintains its ci 800° F.

Dia.	Dia. Tolerance	Straightness Tolerance	Magnetic Properties		1/2 ft. Lg.
1/3"	-0,0005" to 0"	1/16" per ft	Magnetic	9094 1	\$7.13
4-200	-0 0005" to 0"	1/16" per ft	Magnetic	9004 / 0_	8.00
3:50"	-0 0005" to 0"	tris" per fl	Magnetic	9094	8 91
174"	-0 0005" to 0"	1:16" per ft	Magnetic	9094 6 .	10.24
5:401"	-0 0005" to 0"	1/18" per ft	Magnetic	90 44	10 86
2787	-0.0005" to 0"	1:16" per ft.	Magnetic		12 13
THE	-0.0005" to 0"	1216" par ft	Magnetic	9094	12.89